



Circuit breaker size S3 for motor protection, CLASS 10 A-release 65...84 A N-release 1170 A screw terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV2
General technical data	
size of the circuit-breaker	S3
size of contactor can be combined company-specific	S3
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
• at AC in hot operating state	34 W
• at AC in hot operating state per pole	11.3 W
insulation voltage with degree of pollution 3 at AC rated value	1 000 V
surge voltage resistance rated value	8 kV
maximum permissible voltage for safe isolation in networks with grounded star point	
• between main and auxiliary circuit	400 V
• between main and auxiliary circuit	400 V
shock resistance acc. to IEC 60068-2-27	25g / 11 ms Sinus
mechanical service life (switching cycles)	
• of the main contacts typical	25 000
• of auxiliary contacts typical	25 000
electrical endurance (switching cycles) typical	25 000
type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD
certificate of suitability according to ATEX directive 2014/34/EU	DMT 02 ATEX F 001
reference code acc. to IEC 81346-2	Q
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
• ambient temperature during operation	-20 ... +60 °C
• ambient temperature during storage	-50 ... +80 °C
• ambient temperature during transport	-50 ... +80 °C
temperature compensation	-20 ... +60 °C
relative humidity during operation	10 ... 95 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the	65 ... 84 A

current-dependent overload release	
<ul style="list-style-type: none"> operating voltage rated value operating voltage at AC-3 rated value maximum 	690 V 690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	84 A
operational current at AC-3 at 400 V rated value	84 A
operating power at AC-3	
<ul style="list-style-type: none"> at 230 V rated value at 400 V rated value at 500 V rated value at 690 V rated value 	22 000 W 45 000 W 55 000 W 75 000 W
operating frequency at AC-3 maximum	15 1/h
Auxiliary circuit	
design of the auxiliary switch	transverse
number of NC contacts for auxiliary contacts	1
<ul style="list-style-type: none"> note 	1
number of NO contacts for auxiliary contacts	1
<ul style="list-style-type: none"> note 	1
operational current of auxiliary contacts at AC-15	
<ul style="list-style-type: none"> at 24 V at 230 V 	2 A 0.5 A
operational current of auxiliary contacts at DC-13	
<ul style="list-style-type: none"> at 24 V at 60 V 	1 A 0.15 A
Protective and monitoring functions	
product function	
<ul style="list-style-type: none"> ground fault detection phase failure detection 	No Yes
trip class	CLASS 10
design of the overload release	thermal
breaking capacity operating short-circuit current (Ics) at AC	
<ul style="list-style-type: none"> at 240 V rated value at 400 V rated value at 500 V rated value at 690 V rated value 	100 kA 30 kA 4 kA 3 kA
breaking capacity maximum short-circuit current (Icu)	
<ul style="list-style-type: none"> at AC at 240 V rated value at AC at 400 V rated value at AC at 500 V rated value at AC at 690 V rated value 	100 kA 65 kA 8 kA 5 kA
response value current of instantaneous short-circuit trip unit	1 170 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
<ul style="list-style-type: none"> at 480 V rated value at 600 V rated value 	84 A 84 A
yielded mechanical performance [hp]	
<ul style="list-style-type: none"> for single-phase AC motor <ul style="list-style-type: none"> at 110/120 V rated value at 230 V rated value for 3-phase AC motor <ul style="list-style-type: none"> at 200/208 V rated value at 220/230 V rated value at 460/480 V rated value at 575/600 V rated value 	7.5 hp 15 hp 25 hp 30 hp 60 hp 75 hp
contact rating of auxiliary contacts according to UL	C300 / R300
Short-circuit protection	

product function short circuit protection	Yes
design of the short-circuit trip	magnetic
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
height	165 mm
width	70 mm
depth	176 mm
required spacing	
<ul style="list-style-type: none"> ● for grounded parts at 400 V <ul style="list-style-type: none"> — downwards 70 mm — upwards 70 mm — at the side 10 mm ● for live parts at 400 V <ul style="list-style-type: none"> — downwards 70 mm — upwards 70 mm — at the side 10 mm ● for grounded parts at 500 V <ul style="list-style-type: none"> — downwards 110 mm — upwards 110 mm — at the side 10 mm ● for live parts at 500 V <ul style="list-style-type: none"> — downwards 110 mm — upwards 110 mm — at the side 10 mm ● for grounded parts at 690 V <ul style="list-style-type: none"> — downwards 150 mm — upwards 150 mm — backwards 0 mm — at the side 30 mm — forwards 0 mm ● for live parts at 690 V <ul style="list-style-type: none"> — downwards 150 mm — upwards 150 mm — backwards 0 mm — at the side 30 mm — forwards 0 mm 	
Connections/ Terminals	
product function removable terminal for auxiliary and control circuit	No
type of electrical connection	
<ul style="list-style-type: none"> ● for main current circuit screw-type terminals ● for auxiliary and control circuit screw-type terminals 	
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> ● for main contacts <ul style="list-style-type: none"> — solid 2x (2.5 ... 16 mm²) — solid or stranded 2x (2,5 ... 50 mm²), 1x (10 ... 70 mm²) — finely stranded with core end processing 2x (2.5 ... 35 mm²), 1x (2.5 ... 50 mm²) — finely stranded without core end processing 2x (10 ... 35 mm²), 1x (10 ... 50 mm²) 	
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> ● for auxiliary contacts <ul style="list-style-type: none"> — finely stranded with core end processing 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) ● at AWG cables for auxiliary contacts 2x (20 ... 16), 2x (18 ... 14) 	
tightening torque	
<ul style="list-style-type: none"> ● for main contacts for ring cable lug 4.5 ... 6 N·m 	
outer diameter of the usable ring cable lug maximum	19 mm

<ul style="list-style-type: none"> tightening torque for main contacts with screw-type terminals tightening torque for auxiliary contacts with screw-type terminals 	<p>4.5 ... 6 N·m</p> <p>0.8 ... 1.2 N·m</p>
design of the thread of the connection screw <ul style="list-style-type: none"> of the auxiliary and control contacts 	M3

Safety related data	
B10 value	
<ul style="list-style-type: none"> with high demand rate acc. to SN 31920 	5 000
proportion of dangerous failures	
<ul style="list-style-type: none"> with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920 	50 % 50 %
T1 value for proof test interval or service life acc. to IEC 61508	10 y
protection class IP on the front acc. to IEC 60529	IP20
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front
display version for switching status	Handle

Certificates/ approvals	
General Product Approval	For use in hazardous locations



[KC](#)



For use in hazardous locations	Declaration of Conformity	Test Certificates	Marine / Shipping
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[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping



other	Railway
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[Confirmation](#)

[Confirmation](#)



[Confirmation](#)

[Vibration and Shock](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2041-4RA15>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2041-4RA15>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2041-4RA15>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

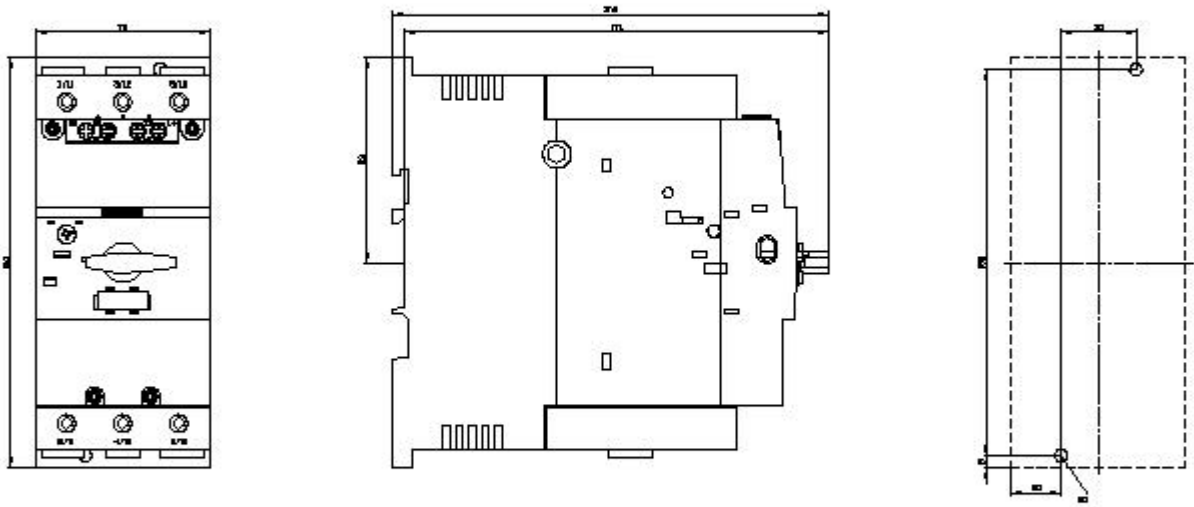
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2041-4RA15&lang=en

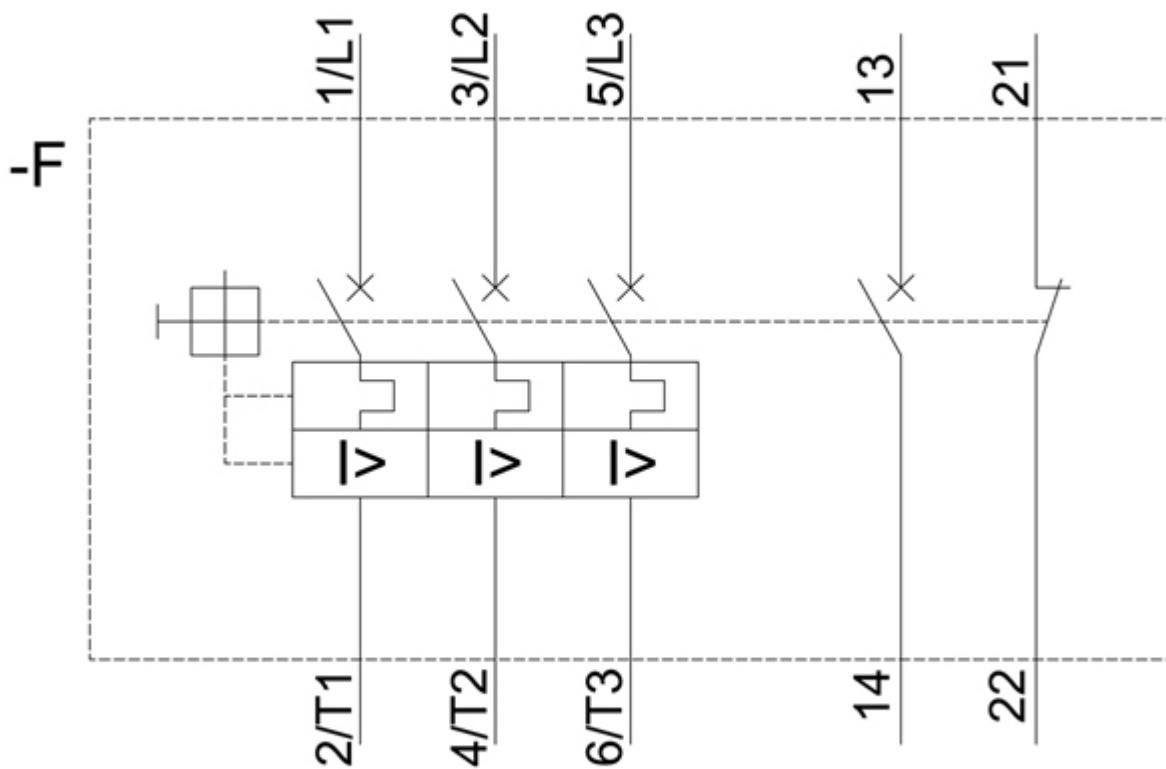
Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2041-4RA15/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2041-4RA15&objecttype=14&gridview=view1>





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